- cost methodologies must provide consideration to both Fully Distributed Costs (FDC) and Long-Run Incremental Costs (LRIC) (Id.)

- cost methodologies must promote economic efficiency (i.e., should maximize the utilization of existing resources) (Decision, Docket No. 88-03-31, August 8, 1990, III.B)

- cost methodologies must preclude any remaining monopoly services from being allocated costs otherwise properly attributable to competitive services (Id.)

- cost methodologies must allow the burden of common costs, such as general overhead, to be shared fairly by all users (Id.)

- cost methodologies must not pose an undue administrative and financial burden on the company required to perform it (Id.)

- cost submissions provided by the participants to the Department are only guides to the establishment of cost thresholds (Decision, Docket No. 94-10-01, June 15, 1995, pg. 27)

- TSLRIC is a cost methodology that is consistent with Departmental principles introduced in Docket No. 88-03-31, Docket No. 89-12-05, Docket No. 91-10-06 and Docket No. 92-09-19 and warrants use in future submissions of costs (Decision, Docket No. 94-10-01, June 15, 1995, pg. 27 and 28)

- For purposes of establishing price, it is essential to provide some level of contribution above incremental cost to recover all investment costs and associated expenses for a particular service (Decision, Docket No. 94-10-01, June 15, 1995, pg. 28)

The collective product of the Department's past efforts has been the construction of a conceptual framework for this proceeding that requires a determination of the lowest possible cost threshold using TSLRIC as the basis for any such calculation, acceptance of the principle that some contribution above that cost threshold will be necessary to cover costs not captured by the TSLRIC methodology and recognition that the price set in this proceeding will impact upon the development of future competition.

IV. POSITIONS OF THE PARTICIPANTS

A. THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY (SNET)

SNET states that this docket addresses the issues involved in the establishment of permanent rates for certain unbundled elements. Specifically, the proposed rates for unbundled loops, ports, multiplexing and inter-wire center transport for loops and ports, and voice grade cross-connects.[4] SNET also states that these issues are new to the

[4] Multiplexing is the process of converting and aggregating signal levels. DS3 to DS1 multiplexing provides an arrangement that converts a DS3 signal to or from 28 DS1 signals. DS1 to voice

Department because the December 24, 1995 (sic) Decision in Docket No. 95-06-17 set out the directives for SNET to follow in conducting cost of service studies. According to SNET, that Decision required that permanent rates for unbundled elements be based on their TSLRIC, while recognizing that SNET is entitled to a reasonable contribution to cover its joint and common costs.

1. Costing Methodologies and Studies

SNET argues that in the instant docket, the Department must resolve the question of the proper cost methodology to be utilized in the pricing of SNET's services (e.g., loops, ports, and additional unbundled network elements). SNET also argues that the Department must establish permanent rates for specific unbundled elements presented during this proceeding. Consequently, SNET requests the Department approve its cost study methodology, and find that its: 1) TSLRIC studies comply with the Department's directives; 2) proposed allocation of the joint costs associated with its HFC network is reasonable; and 3) proposed markup constitutes a reasonable recovery of its joint and common costs. Lastly, SNET requests the Department adopt its proposed rates as permanent rates for its filed unbundled elements.

SNET states that the Department should find that its cost studies comply fully with the Department's directives concerning cost of service studies. Noting the Department's cost study concerns expressed in its December 20, 1995 Decision in Docket No. 95-06-17, SNET states that its revised cost studies fully comply with the Department's directives. For example, SNET claims that it has provided sufficient cost study information in that the revised studies were expanded to eliminate previous gaps for its earlier cost submissions. SNET also claims that it has added indices to the study documentation and filed an annotated TSLRIC study which included cross references identifying the study back-up documentation. Additionally, SNET has included all study inputs, enabling the mapping of each output back to its source. SNET also has incorporated an output that identified all costs attributable to service elements.

SNET maintains that its major revisions are reflected in its studies to account for: revised depreciation rates; elimination of capacity costing techniques; identification of variable costs; and digital loop carrier (DLC) costs. SNET also maintains that these studies reflect the depreciation rates approved by the Department in Docket No. 94-10-03, and has excluded capacity costs calculations from all studies. Additionally, SNET claims that it has eliminated the capacity cost options in the operation of Bellcore's SCIS, modified the treatment of copper cable by the copper/fiber loop models and developed a new TSLRIC output that identifies all costs attributable to service elements. SNET also claims that it has reduced its DLC costs in its Loop Core Study

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grade/ISDN multiplexing provides an arrangement that converts a DS1 signal to or from 24 voice grade signals, or 8 BRI-ISDN signals. Inter-wire center transport may be used to bring a loop or port from a distant SNET wire center to a CLEC's collocated space. Multiplexing and inter-wire center transport can also be combined to (a DS1 costs less than 24 voice grade lines and a DS3 costs less than 28 DS1 lines) connect a CLEC's facilities to unbundled services located at a distant central office. The rates for multiplexing and inter-wire center transport are the same rates for the same elements provided in the Connecticut State Access Tariff for Switched or Special Access, where appropriate. SNET claims that the rates for multiplexing and inter-wire center transport are not an issue in this proceeding. Bencivengo 7/8/96 Prefiled Testimony, pp. 5 and 6, 12. SNET Brief, p. 1.

and provided a TSLRIC study for loops that included pole attachment expenses.[5] Further, SNET claims that it has recognized bulk provision costs and has reflected these in its unbundled loops and ports' rate structure. SNET maintains that it has, consistent with the FCC's First Report and Order at ¶364, included unseparated costs in its loop rate. Lastly, SNET maintains that in compliance with the December 20, 1995 Decision in Docket No. 95-06-17, SNET has filed a Service Connection/Disconnection Core Study, a study associated with the service order and provisioning process. SNET Brief, pp. 1 and 2, 18-23; SNET Reply Brief, pp. 3-6.

a. Total Service Long Run Incremental Cost

SNET maintains that its TSLRIC methodology is the proper costing methodology for setting the prices of unbundled network elements because it is consistent with the methodology adopted by the Department and is consistent with the 1996 Federal Act. SNET contends that §252 of the 1996 Federal Act entrusts to the states the authority to establish any rates for interconnection, services or network elements according to the pricing standards set forth in the FTA at §252(d). SNET also contends that while Docket No. 94-10-01 and prior Decisions predate the 1996 Federal Act, adoption of TSLRIC as the cost study methodology for the pricing of unbundled elements is well within the Department's authority under the FTA. SNET claims that there is nothing in the FTA which overrides the Department's adoption of SNET's TSLRIC methodology as the proper cost study methodology and that there is no inconsistency between the 1996 Federal Act and the pricing of interconnection and network elements. SNET opines that the TSLRIC methodology remains the best methodology for the development of an effective competitive environment. SNET also opines that the Department's cost of service decisions are neither preempted or nullified by passage of the 1996 Federal Act and remain valid and in force. SNET Brief, pp. 8-10.

SNET states that its cost methodology and studies, by identifying a service's long-run incremental costs, permit the setting of price floors that prevent cross-subsidization by ensuring that the price is at least as great as the incremental costs of providing the service. SNET also states that its cost methodology and studies promote competition on the basis of economic efficiency, and protect customers without protecting any competitor. SNET maintains that there is no requirement under the FTA that the Department's cost study determinations be revisited or overturned. According to SNET, the "TSLRIC plus" cost study methodology remains the most appropriate costing methodology for SNET's unbundled services and the most appropriate for encouraging an effective competitive marketplace. SNET Brief, pp. 10-13.

b. Hatfield Model

[5] SNET states that while the Department has required it to exclude pole attachment expenses from its loop study, it interprets the FTA at §224(g) to require that such costs be included. SNET Brief, pp. 20 and 21. AT&T disagrees. According to AT&T, that section of the 1996 Federal Act has nothing to do with the pricing of unbundled elements to be sold to CLECs. AT&T states that this section merely requires that carriers like SNET impute the pole attachment rate that it charges to entities like cable operators to its own affiliates, so as to prevent those affiliates from competing unfairly. AT&T maintains that this imputation requirement, which is designed to prevent abuse of retail pricing, is irrelevant in determining the costs to be charged CLECs for unbundled loops. AT&T Reply Brief, p. 4.

SNET argues against the use of the total element long run incremental cost methodology presented in this proceeding. SNET claims that the Hatfield Model has several inherent flaws and fails to consider its specific cost data in setting rates. Specifically, SNET states that the Hatfield Model uses data from many different states and adjusts this data, based on the judgment of the model's creators, to derive default input assumptions rather than being based on Connecticut data. SNET, while noting that the Hatfield Model uses Census Block Data (CBD) (which contains customer location information), argues that it does not represent actual serving areas, because it is based on a hypothetical network and simplified mathematical formulas rather than its actual network. SNET contends that a true economic cost study should take into consideration the actual conditions in its service area and reflect these circumstances, so that the prices paid for service reflects the costs of the actual resources that an efficient firm would use. According to SNET the Hatfield Model does not do this. SNET cites as an example its deployment of the HFC technology. SNET maintains that the Hatfield Model does not consider HFC even though SNET is installing an HFC network. SNET opines that using the Hatfield Model to establish prices for unbundled elements fails to reflect the actual resources that it would use. SNET also questions the auditability of the Hatfield Model. Additionally, SNET claims that the Hatfield Model fails to comply with the Department's directives in Docket No. 94-10-01 by not assigning its costs based on cost causation and not providing an accurate means of measuring incremental costs of SNET's existing facilities. Further, SNET claims that the Hatfield Model assumes all investments are placed without constraints on existing technologies that might exist in the network.

Lastly, SNET claims that the Hatfield Model fails to provide the Department with a valid methodology to establish the prices for SNET's unbundled elements because of its disregard of Connecticut and SNET-specific data in favor of determining costs based upon a hypothetical network. SNET argues that the Hatfield Model's results have no relationship to Connecticut's actual experiences, and therefore, should be rejected by the Department. SNET Brief, pp. 13-16.

c. LECOM

SNET also argues against use of the LECOM Model as presented by OCC. According to SNET, LECOM suffers from many, if not more, of the same defects as the Hatfield Model.[6] SNET maintains that the LECOM Model remains an unacceptable costing model for the establishment of unbundled network element rates. For example, SNET contends that the LECOM Model fails to comply with the Department's directives in Docket No. 94-10-01 in that it ignores SNET-specific data, while attempting to monitor the costs of providing unbundled network elements. Additionally, SNET contends that LECOM fails to take into account recovery of joint and common costs, does not use all of SNET's network elements currently in its network, nor is the model auditable. Based on these short comings, SNET recommends the Department reject LECOM as a theoretical model. SNET Brief, pp. 16-18.

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[6] OCC states that SNET's attacks on LECOM are without merit and should be given little, if any, weight by the Department. OCC also states that LECOM provides an appropriate boundary for the Department to rely on in setting network element rates. OCC Reply Brief, p. 10.

2. HFC Costs

SNET states that its allocation of the joint HFC costs fifty-fifty to both telephony and broadband is reasonable and should be approved by the Department.[7] SNET has assigned the direct costs associated with broadband and those associated with narrowband to broadband and narrowband respectively. SNET also states that the components of the network that could not be distinguished as telephony or broadband are considered joint costs. According to SNET, the joint costs have been allocated using the maximum projected usage of one cable line for each telephone line, resulting in a 50% allocation to telephony and a 50% allocation to broadband. SNET Brief, p. 26; SNET Reply Brief, pp. 6-9.

3. Unbundled Service Rates

Relative to pricing unbundled elements, SNET claims that the rates for these service elements reflect their TSLRIC costs plus a reasonable markup for joint and common costs. Additionally, SNET claims that its proposed rate structure and charges for the Complex and Simple 2 wire voice grade loops are reasonable. SNET opines that the Department should find its recurring loop rates to also be reasonable.

a. Nonrecurring Charges

SNET contends that in establishing the proposed nonrecurring charge structure for the Complex Loop, it analyzed the process that could be used to meet all of the provision and maintenance needs of the CLECs. SNET also contends that to provide a loop product that captured this process, it intends to utilize the complex service process because its current non-complex process for bundled plain old telephone service (POTS) cannot accommodate provisioning and maintenance of unbundled loops. SNET posits that this process was designed to support bundled POTS services which have different design parameters than unbundled loops, (e.g., integration of the loop and the switch and the assignment of a telephone number). SNET states that the telephone number is populated in the Loop Maintenance Operating System (LMOS) allowing identification of the loop portion of the service for maintenance purposes. According to SNET, since an unbundled loop does not have a telephone number assigned, the current non-complex process provides no way to identify the loop for performance of any repairs.

SNET maintains that its complex service process is designed to support services where various provisioning alternatives exist and where the service is only a piece of an end-to-end service provided to an end user. SNET also maintains that when provisioning unbundled loops, it no longer retains end-to-end responsibility for the service. Consequently, SNET developed a method of testing to ensure that the elements were provisioned and maintained properly, similar to the procedures employed for similar services, (i.e., private line service).

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[7] As discussed in greater detail below, the New England Cable Television Association, Inc. (NECTA) takes issue with SNET's treatment of the joint and common costs associated with its deployment of the HFC network.

SNET asserts that providing testing capability for unbundled loops requires significant work effort. This includes assignment of circuit numbers to the loop for record keeping and status tracking information. SNET states that orders for Complex Loops also require a connection into the Switch Maintenance Access System (SMAS) for ease of trouble testing. SNET also states that connection to SMAS adds increased Central Office (CO) technician work time to connect into and out of system. For circuits converting from retail local service and resale local service, SNET maintains that additional work effort is required to remove the old connection from the main distribution frame (MDF) to the SNET switch which is no longer to be used. According to SNET, line connection costs also increase with unbundled loops because installers are dispatched to end user locations to insure that the continuity of the circuit and the proper transmission characteristics are met to satisfy the requirements of complex orders. Additionally, as a result of the need to use the complex service order process, a Work Order Record Detail (WORD) document, which assigns the necessary circuit design characteristics, is completed. For provisioning purposes, unbundled loops must be treated the same as private line circuits, requiring WORD document functions and connection to special test equipment.

Based on the Parties' concerns expressed during this proceeding concerning the nonrecurring charges for the Complex Loop, SNET offered to develop and provide, in addition to the Complex Loop, a Simple Loop that would not use the complex service process. SNET defines a Simple Loop as a loop that is cross-connected from SNET's MDF to the CLEC's collocated space in the same central office. SNET proposes that the recurring monthly rates for the Simple Loop be the same as the Complex Loop, but, with lower nonrecurring charges.[8] SNET claims that the lower nonrecurring charges reflect: (i) a reduction in cross-connection charges incurred to connect to SMAS; (ii) elimination of business dispatch administrative center costs; and (iii) elimination of the costs associated with WORD. The Simple Loop also does not include the remote testing capability on a mechanized basis. Lastly, SNET proposes to charge on a time and material basis for testing or support requested by the CLEC in either the provisioning or maintenance process until SNET has gained sufficient experience to propose a different or a specified rate to cover that circumstance. SNET Brief, pp. 29-33; SNET Reply Brief, pp. 15-17.

b. Contribution to Common Costs

SNET states that its proposed levels of joint and common costs for loops and ports are reasonable, and should be considered by the Department for recovery. In order to recover these costs, SNET proposes that a mark-up on the proposed services be imposed. SNET has based its mark-up on its 1994 Fully distributed Cost study filed in Docket No. 95-03-01, Application of the Southern New England Telephone Company for Financial Review and Proposed Framework for Alternative Regulation, and a comparison of the Company's 1996 revenues and incremental costs. SNET claims that these two measures result in a markup requirement of 25% to 59% for each service.

[8] OCC takes issue with this proposal. According to OCC, while it recognizes SNET has significantly reduced these nonrecurring charges, these rates continue to remain high and should be reduced to a more appropriate level to encourage carriers to enter Connecticut's market through the purchase of unbundled loops. OCC Reply Brief, pp. 1-4.

SNET claims that in the aggregate, it must be able to achieve price levels which approach 59% above incremental cost. Noting that various parties have recommended lower mark-ups, (e.g., OCC at 15% and MCI at 10%), SNET opines that the Department not adopt their recommendation because of the number of other facilities-based carriers in the state.

SNET also states that in view of the requirement to recover 59% on an aggregate basis, its proposed mark-ups are reasonable. According to SNET, its proposed mark-ups are based on SNET's desire to support a balance between resale and facilities-based competition and to accommodate the risks involved in making unbundled elements available. SNET Brief, pp. 33-37; SNET Reply Brief, pp. 21-24.

4. Service Quality

Lastly, SNET claims that in compliance with the 1996 Federal Telcom Act and the FCC's First Report and Order, it will provision, maintain, and repair CLECs' services in a nondiscriminatory manner for like-type services offered by the retail entity. SNET also intends to provide each CLEC with a monthly report that will depict SNET's provision and maintenance on a monthly basis in addition to the reporting requirements already established in the Department's March 13, 1996 Decision in Docket No. 95-03-01. In particular, SNET proposes that the following measurements include:

- Installation Intervals (Business days) - Measures the application date to offered due date interval on all dispatchable and non-dispatchable service orders. Results are calculated by dividing the total number of interval business days by the total number of "W" coded service orders.
- Installation Appointments Met (Percent) - Measures the inverse calculation of Company missed appointments to the total number of New ("N"), To ("T"), and Change ("C") service orders (dispatchable and non-dispatchable). Company missed appointments are attributable to facility problems, heavy service load volumes and Switching/Assignment/Business Office/Equipment problems.
- Mean Time To Repair (Hours) - Measures the mean duration from receipt to clearance of an Out-of-Service (OSS) trouble based on initial network OSS trouble reports. Inside and outside network troubles up to and including the customer network interface are included.
- Maintenance Appointments Met (Percent) - Measures the inverse calculation of customer missed appointments to the total number of initial network trouble reports. This measurement encompasses inside and outside network, but excludes troubles behind the customer network interface.

SNET claims that the above measurements are "results oriented" and fall within the measures established in the March 13, 1996 Decision in Docket No. 95-03-01.

SNET contends that these service measurements will outline SNET/CLEC performance levels as compared to other CLECs and SNET's retail unit. SNET states that these measurements are largely applicable to wholesale services. For unbundled elements, SNET indicted that it would provide proposed service standards to the Department and the Parties on April 15, 1997. SNET also proposes that in lieu of financial penalties, enforcement should be similar to the steps taken in the access arena (i.e., meetings convened, results reviewed, action plans developed, and rebates provided for specific service problems). SNET further proposes that the above standards incorporate proposed credits where applicable. Finally, SNET commits to working with the CLECs in establishing appropriate service intervals and standards. Therefore, in light of SNET's proposed service measurements, SNET requests that the Department defer any decision on service standards and penalties until a review of its April 15, 1997 filing has been completed. SNET Brief, pp. 37-39.

B. OFFICE OF CONSUMER COUNSEL (OCC)

OCC urges the Department to impose several substantial adjustments to SNET's cost studies to more accurately reflect forward looking economic costs. OCC states that as filed, SNET's cost studies result in significant overstatements of both nonrecurring and recurring costs. OCC claims that if the Department fails to adjust SNET's study results to eliminate these excess costs, the prices will be too high. Consequently, OCC recommends that the Department reduce SNET's reported incremental costs for a local loop by 10% to more closely reflect its true forward looking economic costs, based on a least cost, most efficient technology.[9] OCC also recommends that the Department adopt a uniform 15% mark-up above incremental costs for the recovery of common costs, consistent with both the Department's decisions in earlier dockets and with the FCC's First Report and Order. OCC Brief, pp. 1-3.

1. Nonrecurring Charges and Recurring Rates

OCC contends that SNET's proposed nonrecurring charges risk creating a significant barrier to facilities-based entry. OCC compares SNET's proposed unbundled loop nonrecurring charges that range from $227.21 to over $600 compared to the $13.75 (existing service) and $29.68 (new service) for residential customers and $13.75 (existing service) and $43.81 (new service) for business customers imposed on CLECs when purchasing wholesale service. OCC claims that in a competitive market, it will be extremely difficult for a facilities-based CLEC to recover these charges. OCC also claims that customer churn in the local market will make it very difficult, if not impossible, for new entrants to recover the nonrecurring charges through retail sales.[10]

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[9] SNET disagrees. According to SNET, OCC's 10% reduction is unsupported and must be rejected. SNET states that rather than producing economic, documentary evidence of the need for a 10% reduction, OCC has arbitrarily proposed a figure that it deems "reasonable . . . competition in Connecticut." Accordingly, SNET urges the Department to reject OCC's proposal. SNET Reply Brief, p. 12.

[10] OCC is not the only party concerned with churn. See for example AT&T Brief at p. 26 and MCI's Brief at p. 36. SNET contends that churn is a phenomenon that will be shared by both the CLECs and SNET. SNET suggests that if the CLECs believe that the proposed nonrecurring charges are excessive, they can attempt to recover those costs through the recurring rates they charge their end

OCC maintains that the primary factor underlying these high charges is SNET's decision to characterize these services as Complex Circuits. According to OCC, SNET's treatment of unbundled loops as a complex process increases the CLEC's costs. OCC argues that there is no basis for SNET to treat unbundled loops as complex or special service circuits. OCC also argues that by arbitrarily classifying loop interconnection as a complex process, CLECs are required to pay for special services that are not required when an interconnection is classified as simple. OCC posits that SNET's decision to treat unbundled loops as Complex Circuits is not necessary from a technical perspective, but will effectively deter competitive entry through the purchase of network elements. Relative to SNET's revised proposal to offer unbundled loops without the SMAS testing capability, OCC states that it will reserve final judgment and any recommendations until it has an opportunity to review SNET's nonrecurring charge proposal. OCC Brief, pp. 3-8; OCC Reply Brief, pp. 2-4.

OCC agrees that products should be priced at incremental cost plus a markup to offset joint and common costs. However, OCC contends that SNET's estimates of joint and common costs should not be embedded costs, as SNET suggests, but should be based on economic costs. Additionally, OCC disagrees with SNET's proposal to price its unbundled network elements based on the separated cost of a loop. OCC claims that in addition to a charge for recovery of intrastate costs, SNET proposes to charge rates based on its interstate tariffs. OCC contends that it would be simpler to have just one rate apply to the unbundled loop.

Additionally, OCC states that it has included a 15% markup above TELRIC in its proposed rates. According to OCC, this mark-up, was not uniformly applied to each of the four density zones. OCC proposes an equal dollar mark-up for each density zone be applied, producing an aggregate contribution as if each zone's cost had been increased by 15%. OCC does recommend, however, that in high-density markets the Department allow SNET to have a larger markup.

Lastly, OCC suggests that SNET be provided with pricing flexibility for its network elements and recommends that the price established in this proceeding serve as a rate ceiling and the cost estimates, as the pricing floor. Gabel Testimony, pp. 24-31.

2. Cost Methodologies and Studies

OCC takes issue with SNET's loops studies because they include significant errors that render its results unreliable. For example, OCC states that it has discovered several significant costing errors associated with SNET's DLC cost amounting to several hundred dollars per access line. OCC also states that this error led to the discovery of an additional error, which produced further changes in the cost data, which were significant enough to offset the original error. OCC opines that while the errors do not appear to be driven in an over or an understatement, the severity of these errors makes the validity of SNET's cost estimates questionable. OCC posits that the combination of the identified errors and outdated nature of SNET's copper/fiber cost

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user customers or enter into contracts with customers to assure cost recovery. SNET Reply Brief, pp. 19 and 20.

study, demonstrates the questionable nature of SNET's reported costs. OCC Brief, pp. 14-16.

OCC has provided its own estimates of TELRIC and TSLRIC of providing unbundled loops and has proposed prices for unbundled loops and ports. OCC asserts that its cost studies indicate that SNET has over estimated the cost of providing service and unbundled network elements in metropolitan and urban areas and has underestimated the cost in rural and suburban markets.

a. TSLRIC

OCC also states that SNET's recurring incremental costs are flawed and takes issue with SNET's cost study because it does not measure the least cost, most efficient network technology in violation of the 1996 Federal Act and the Department's cost of service Decisions. OCC maintains SNET's Loop Core Cost Study is based on a five year study period from 1996 through 2000 and measures the mix of technologies used to serve the Rural, Suburban, Urban and Metro geographic areas. OCC argues that while SNET expects to have HFC fully deployed within 15 years, its cost study includes only partial deployment of this technology. OCC notes that in some cases (i.e., suburban and rural), SNET's study includes little or no least cost HFC technology. OCC states that the net effect, is that the Loop Core Study is heavily weighted toward the costs of copper/fiber and does not sufficiently incorporate the most efficient, least cost HFC technology. OCC also states that the significant impact of SNET's failure to capture the efficiencies associated with the HFC network is evident by looking two years beyond its five year study period, to the year 2003. According to OCC, by 2003, the percentage of HFC lines deployed will increase significantly. OCC contends that had SNET studied to the year 2003, it would have captured a virtually fully deployed HFC network, rather than the current analysis which reflects a copper/fiber mix. OCC also contends that SNET's failure to capture the least cost, most efficient technology, results in a substantial overstatement of costs

OCC concludes that SNET's costing methodology creates a significant risk because its incremental loop costs are significantly overstated. OCC states that by failing to base its study exclusively on the HFC technology, SNET's study results incorporate high costs and inefficiencies of the existing copper/fiber network. OCC also states that the validity of SNET's study is suspect because of the errors in the copper/fiber analysis, the uncertainties surrounding the cost associated with HFC deployment, the arbitrary nature of the allocation of joint HFC costs, and the lower results reported by LECOM. Therefore, OCC urges the Department to adopt a 10% reduction in SNET's reported TSLRIC loop costs. OCC contends that a 10% reduction is reasonable in light of the apparent overstatements in SNET's study results and the benefits of encouraging facilities-based competition in Connecticut. OCC Brief, pp. 8-14, 23 and 24; OCC Reply Brief, 4-7.

b. LECOM

OCC estimated TSLRIC of unbundled loops and ports for rural, suburban, urban, and metropolitan model offices in SNET's service territory using the Local Exchange

Cost Optimization Model (LECOM). OCC claims this study is forward-looking and reflects the costs that SNET would incur using a copper/fiber architecture. OCC contends that LECOM is appropriate because copper/fiber is the most efficient telecommunications technology currently available. OCC states that it has not estimated the cost of using a HFC network because there is so much uncertainty concerning the cost of this technology. OCC asserts that the LECOM estimates provide a ceiling for the expenditure of providing loops and ports. Additionally, OCC argues, SNET's study does not comply with FCC rules because it presumes an HFC architecture which may not be a cost-minimizing technology. OCC also argues LECOM is preferred because it identifies both the total service incremental cost and the average cost of production. OCC contends that it is not clear that SNET's study identifies total service long-run incremental costs and costs identified as incremental costs, which are often average marginal values that may not be calculated correctly. OCC states that SNET has still not provided the core models which it uses to estimate investments associated with some services and elements and has provided no documentation with its loop model. OCC argues that if cost savings will be achieved through the use of HFC, then SNET's estimates of the cost of providing voice service on a HFC network should be less than the costs identified by LECOM. Thus, OCC asserts, LECOM provides an upper boundary for the cost of providing voice service. Gabel Testimony, pp. 4-24.

OCC also states that LECOM confirms that SNET's loop costs are excessive. OCC opines that the weakness of SNET's cost results is highlighted when comparing SNET's results with those derived through LECOM. OCC maintains that LECOM provides the Department with a proper benchmark from which to judge the reasonableness of SNET's reported loop and port costs. According to OCC, like SNET's study, LECOM estimates the costs of adding unbundled loops and ports for rural, suburban, urban and metropolitan model offices in its service territory. OCC claims that LECOM also calculates the costs of copper/fiber technologies at specific locations with a specified number of customers attached to the switch. In these calculations, LECOM relies on SNET data and cost inputs.

During this proceeding, LECOM estimated the TSLRIC and TELRIC of providing additional unbundled copper/fiber loops and port facilities in the four types of model offices currently used in SNET's cost study. OCC states that LECOM is entirely consistent with the Department established costing principles. Specifically, LECOM is forward-looking and reflects the costs that SNET would incur using a copper/fiber architecture. LECOM also provides cost estimates for different cost-causing activities. Additionally, LECOM provides an estimate of both incremental and average costs and provides an estimate of prospective economic costs. Lastly, LECOM focuses on estimating the cost of monopoly services; and therefore, does not allocate costs associated with competitive services to monopoly ratepayers.

Therefore, OCC concludes that LECOM provides a more than reasonable benchmark that the Department can use to evaluate SNET's cost estimates. OCC contends that SNET's costs should not be any greater than the LECOM results, because LECOM's estimates include the HFC technology and are based entirely on SNET's cost data and measurements. OCC notes that comparing SNET's cost estimates with those of LECOM for the Metro and Urban market demonstrates that

SNET's reported costs are overstated by a significant amount. OCC Brief, pp. 20-23; OCC Reply Brief, p. 8.

3. HFC Costs

Additionally, OCC argues that SNET's reported HFC costs are unreliable and risk overstating telephony costs. OCC claims that SNET's copper/fiber network heightens the concern that HFC costs are unreliable. OCC notes that this problem is further compounded because comparatively little is known about the HFC technology. OCC also claims that SNET's HFC study does not satisfy the Department's concerns over the allocation of HFC joint costs and that its proposed 50/50 allocation methodology does not take into account considerations of capacity utilization or derived benefit nor does it reflect the capacity for telephony.

OCC states that SNET's 50% allocation of HFC joint costs is not based on derived benefit as evidenced by the fact that telephony customers are not fully benefiting from the cost savings anticipated from the HFC deployment. OCC bases this statement on SNET's claim that it will achieve a cost savings of $73.00 per line by deploying the HFC technology. OCC notes however, that SNET has only included approximately $25.00 in cost savings resulting from deployment of the HFC technology in its TSLRIC studies. Therefore, OCC opines that SNET has failed to report all projected cost savings that its telephony customers could realize from SNET's HFC deployment. OCC asserts that by loading up the HFC costs, SNET's cost study will force purchasers of its loops to bear a disproportionate cost burden while denying them the appropriate cost savings. OCC therefore recommends that SNET be directed to allocate the same percentage of joint costs and derived benefit to comply with the December 20, 1995 Decision in Docket No. 95-06-17. OCC suggests that SNET's allocation be based on a sliding scale to reflect its HFC deployment schedule. Specifically, as SNET flows through its cost savings to its telephony services, that it be permitted at the same time to allocate a proportionate share of its joint costs to telephony. OCC Brief, pp. 16-20.

4. Common Costs

OCC claims that SNET's estimated and proposed recovery of common costs are overstated. OCC argues that SNET's methodology for estimating common costs is based on historical embedded costs in violation of the 1996 Federal Act, the Department's costing directives and the FCC's First Report and Order. According to OCC, SNET's common cost studies should be held to the same forward looking standard as its TSLRIC studies. Noting that SNET calculated its joint and common costs using two separate methods, OCC maintains that both of SNET's methodologies overstate the common costs because they focus on historical and embedded costs, (which overstate its forward-looking common costs) and include the inefficiencies existing in SNET's cost structure during the mid-1990s. OCC also claims that both methodologies overstate SNET's common costs because they include retail costs (which are inappropriate for determining wholesale costs) and fail to include forward-looking productivity gains and other future improvements in efficiency. OCC Brief, pp. 24-27.

Additionally, OCC argues that SNET's proposed markups for the recovery of its common costs are excessive under both the Department's directives and the FCC's First Report and Order. Citing the July 17, 1996 Decision in Docket No. 95-11-08, OCC states that the Department limited the amount of contribution for essential services that can only be technically provided by SNET, to the lowest compensatory level of 15%. OCC opines that the principles supporting the application of a 15% contribution should also apply to loops. OCC contends that loops are bottleneck services essential for facilities based competition, and with the exception of a few big cities, loops are not offered by other service providers in all areas of the state. OCC recommends that until loops and ports are available from other carriers on a ubiquitous basis and the Department categorizes them as competitive, SNET's loop rates should include a maximum 15% contribution.

Relative to OCC's claim that SNET's mark-ups are inconsistent with the recovery methodologies in the FCC's First Report and Order, OCC states that it is concerned that SNET's filing may result in multiple recovery of its common costs. According to OCC, SNET's filings do not provide sufficient information to determine whether the sum of the allocation of forward looking common costs for all elements and services equals the firm's total forward looking common costs. OCC notes that the FCC has explicitly prohibited double recovery of common costs and that SNET's high mark-ups suggest that it will enjoy multiple recovery of its common costs. Therefore, OCC urges the Department to reduce SNET's mark-ups to reflect a more reasonable recovery of its common costs. Specifically, OCC recommends that the Department adopt a 15% mark up above incremental cost. OCC Brief, pp. 27-34; OCC Reply Brief, pp. 10 and 11.

C. AT&T COMMUNICATIONS OF NEW ENGLAND, INC. (AT&T)

AT&T requests the Department establish permanent rates for the seven unbundled network elements required by the FCC. AT&T also requests that the Department establish a methodology for determining the prices of the six combinations of unbundled network elements requested by AT&T and adopted by the Department as part of its arbitration award. AT&T believes that prices for these six network element combinations should be based in the prices set for the individual unbundled elements. Salvatore Testimony, p. 6.

In response to SNET's cost studies and proposed rates, AT&T has submitted revised recurring and non-recurring rates for loops and ports. In its submittal, AT&T claims that it eliminated over charges and the mark-up on nonrecurring costs and reduced the markup on recurring costs to 15%. AT&T claims that to determine revised nonrecurring port rates it reduced charges for 2-wire and 4-wire ports and eliminated Special Service Work Order Record Detail charges. Finally, AT&T states that its adjusted non-recurring rates for ports are lower than SNET's because it eliminated overcharges and the markup on non-recurring costs. Siwek Testimony, pp. 13 and 14.

1. SNET's Cost Study

AT&T argues that SNET's recurring loop and port cost studies fail to comply with the Department's previous orders. For example, SNET's cost studies are not sufficiently long-run to reflect the full savings from the deployment of the HFC technology. According to AT&T, SNET's studies are based on a mixture of HFC and traditional copper/fiber networks. AT&T states that if HFC is the most efficient technology, SNET's studies should reflect it; and if HFC is not the most efficient technology for stand-alone telephony service, then no HFC costs should be reflected in the cost study.[11] AT&T states that SNET's study with its mixing of technologies, reflects an improper mixing of long run, forward looking cost methodologies with short term, embedded cost theories.

AT&T also takes issue with the study period chosen by SNET. Specifically, SNET's five year time frame which extends into the year 2000, despite the fact that its current HFC deployment plan will have a notable percentage of the technology deployed by 2003. AT&T opines that as a result of this limited study time frame, SNET's cost study excludes HFC technology entirely from its Rural models. AT&T concludes that if HFC is the most efficient, forward looking technology, SNET's study period should be sufficiently long run to reflect full deployment of that technology. AT&T claims that SNET's use of a mixed network as the basis for its cost study means that the full savings SNET expects in the long run from HFC have not been included in the cost study. AT&T also claims that SNET's failure to reflect these savings in its cost study means that the costs CLECs will incur in purchasing unbundled network elements are inflated over economically efficient levels, which will be passed through to end-user consumer prices.

Additionally, AT&T states that SNET has included pole attachment rates in its cost studies in violation of the Department's directive to the contrary in its December 20, 1995 Decision in Docket No. 95-06-17. Noting that SNET cites §703 of the FTA as its basis for including pole attachment expenses in its loop cost study, AT&T states that this section of the 1996 Federal Act is inapplicable in this situation because it pertains to imputation of the costs of pole attachments to the owner of the poles and its affiliates. AT&T also disagrees with SNET's contention that §703 of the FTA considers pole attachments to be an appropriate cost element for a facility such as unbundled loops which are sold to CLECs. Accordingly, AT&T recommends that the Department order SNET to remove all pole attachment costs from its studies. Waldron Testimony, pp. 4-7, 9 and 10; AT&T Brief, pp. 9-13; AT&T Reply Brief, p. 4.

Further, AT&T takes issue with SNET's cost studies because it uses a 12.25% equity return component rather than the 11.9% ordered by the Department in its March 13, 1996 Decision in Docket No. 95-03-01. AT&T states that although the Decision was rendered in March 1996, SNET did not incorporate the Department's equity return determination in its cost studies filed at the end of April 1996, and has not revised its studies to reflect this change. Consequently, AT&T recommends the Department direct

[11] NECTA concurs. NECTA states that the dilemma posed by AT&T illustrates SNET's failure to conduct the costing analyses recommended by its witness Dr. Johnson. NECTA also states that these costing analyses are needed to prevent cross subsidization and assures that the costs of telephone services are properly identified. NECTA Reply Brief, p. 15.

SNET to rerun its cost studies to include an 11.4% return on equity, the rate that was last authorized by the Department. AT&T Brief, pp. 15 and 16.

AT&T also claims that SNET's cost studies contain numerous errors and inconsistencies. According to AT&T, SNET has acknowledged the errors, but has not carried the corrected results through to the final cost study results. AT&T also claims that SNET has failed to adequately document its cost studies, raising questions about their accuracy. AT&T recommends that SNET be directed to revise both its study methodology and manner of presentation in the future to make such information readily available. AT&T Brief, pp. 16-18; AT&T Reply Brief, p. 2.

AT&T recommends that the Department order SNET to rerun its cost studies making specified changes so that revised costs can be incorporated into the Final Decision. AT&T also recommends that SNET make the following changes:

- model an all HFC network, if that, in fact, results in lower costs than the mixed network SNET has modeled;
- eliminate pole attachment costs, reduce or eliminate HFC joint costs as directed by the Department;
- substitute an 11.4% return on equity component in calculating the cost of capital;
- correct all the errors and inconsistencies identified by Ms. Waldron and carry the results through to the final cost totals; and
- apply the Department-determined level of contribution to the revised cost study results.

AT&T Brief, pp. 18 and 19.

2. HFC Costs

Further, AT&T claims that SNET has improperly included joint costs in its cost studies. AT&T contends that costs incurred to support more than one service cannot be causally attributed to any one service. AT&T states that broadband is not a single service and that a wide variety of information and entertainment services are, and more likely will be, provided using the broadband capacity of the HFC infrastructure. AT&T maintains that as more types of broadband services are deployed, the allocation between telephony and all other services will become more arbitrary and unreasonable. AT&T also maintains that SNET's inclusion in the TSLRIC of the joint costs associated with the HFC network muddies the distinction between contribution and incremental cost and only direct HFC telephony costs should be included in a pure TSLRIC calculation. According to AT&T, SNET is trying to hide the fact that the contribution for joint and common costs it is seeking in recurring loop charges is actually a higher percentage than the amount it acknowledges.

AT&T also contends that concerns about the riskiness of the HFC technology require excluding or minimizing HFC joint costs in SNET's TSLRIC studies. AT&T opines that no other major American LEC is moving forward with a ubiquitous deployment of HFC for telephony. AT&T claims that it is critical that telephone rate payers, including those purchasing service from a CLEC using a SNET loop, be insulated from the risk of subsidizing video services.

Moreover, AT&T suggests that the Department consider the effect of the HFC costs allocation to the local loop in this docket on other issues, particularly its implications for universal service funding issues. AT&T claims that if loop costs are improperly inflated because of an over-allocation of HFC costs, difficult issues will arise concerning the determination of whether any residential services are priced below cost and thus whether any high cost form of universal service support is appropriate. AT&T therefore, recommends that the Department reduce the allocation of joint HFC cost to telephony to less than the 50% proposed by SNET. Waldron Testimony, p. 9; AT&T Brief, pp. 13-15; AT&T Reply Brief, pp. 3 and 4.

3. Contribution to Common Costs

AT&T states that SNET has failed to present evidence of any forward-looking joint and common costs, and therefore, only minimal amounts of contribution, if any, should be added to set prices. AT&T maintains that there is no information on the record that the level of common costs identified in SNET's 1994 FDC would be expected to be incurred if joint and common costs were measured on a forward-looking basis. AT&T claims that SNET's revenue requirement calculation of joint and common costs is even more flawed. While citing the FTA's requirement that costs used in setting prices for unbundled network elements not be based on a "rate of return" calculation, AT&T asserts that SNET's costing methodology does not purport to measure actual joint and common costs, but is simply a mathematical calculation of the amount in excess of total incremental cost needed to achieve a desired rate of return.

AT&T also takes issue with SNET's calculation of its joint and common costs based on a revenue requirement wherein costs could not be explicitly identified and utilized embedded and retail common costs, even though the FCC has required they be excluded. AT&T contends that SNET's revenue requirement calculation recovers a historic depreciation reserve deficiency and all other amounts being used to subsidize services priced below SNET's costs, in violation of the FCC First Report and Order. AT&T also contends that the revenue requirement does not account for SNET's five year cost cutting program, or any other productivity or efficiency improvements. According to AT&T, this simplistic mathematical calculation has no relation to a proper assessment of forward-looking common costs, and should be ignored. AT&T therefore, recommends that the Department reject both SNET's purported joint and common cost studies as contrary to the specific requirements of the 1996 Federal Telcom Act and the FCC's First Report and Order and to generally accepted economic theory. AT&T claims that SNET has failed to demonstrate that any level of contribution is either necessary or appropriate. AT&T Brief, pp. 19-22.

AT&T also recommends that SNET's effort to justify its level of contribution by reference to alleged "legacy costs" should be rejected. AT&T states that the forward

looking costing principles endorsed by the Federal Telcom Act and the Department are fundamentally inconsistent with the recovery of purported legacy costs. AT&T also states that SNET has not presented evidence in this proceeding that regulation has resulted in any significant overall unrecovered costs, particularly in light of the recovery of these costs from such services as access. AT&T opines that even if such legacy costs were established, allowing recovery of them in the price of unbundled network elements would undercut the development of the competition that the FTA is attempting to foster. AT&T Brief, pp. 22 and 23.

AT&T further asserts that because SNET has failed to establish the amount of its forward-looking joint and common costs, only a minimal amount of contribution should be added. AT&T claims that if SNET's proposed contribution levels are used, there is a significant risk that SNET will be recovering in excess of what its actual forward looking joint and common costs are when properly measured. AT&T opines that using a minimum level of contribution is also consistent with economic theory. AT&T states that any additional mark-up above incremental costs is inconsistent with principles of economic efficiency, because allowing SNET to impose such high mark-ups on CLECs will harm competition by preventing prices from being driven to their economically efficient incremental cost. AT&T maintains that SNET is asking the Department to assure that it will recover a high level of contribution on top of its incremental costs, in essence, continuing monopoly profits. AT&T also maintains that competition will be harmed if this level of contribution is included in unbundled elements' prices, because SNET's competitors will then be forced to incur the same inefficient costs in their own cost structure. Because of SNET's failure to present any evidence of the actual forward looking common costs together with the economic inefficiency created by adding mark-ups to the return already included in the TSLRIC calculation, AT&T recommends that any mark-up be kept to a minimum.

Noting that the Department has already recognized the importance of keeping contribution levels to a minimum when pricing essential services, AT&T states that the FCC has also concluded that, only a relatively small share of common costs should be allocated to bottleneck facilities. AT&T argues that since SNET has admitted that residential loops are still a monopoly bottleneck service, only a minimum contribution is appropriate.[12] AT&T also argues that inflating unbundled network element prices to reflect high levels of contribution will improperly raise the costs borne by CLECs to the detriment of competition and end-users. Accordingly, AT&T recommends that the contribution included in the prices for unbundled network elements be limited to no more that 15%. Salvatore Testimony, pp. 9-13; Siwek Testimony, pp. 1-8; AT&T Brief, pp. 23-26; AT&T Reply Brief, pp. 7-10.

4. Nonrecurring Charges and Recurring Rates

AT&T maintains that SNET's proposed nonrecurring charges are excessive and must be reduced. According to AT&T these charges are many times higher than those

[12] AT&T asserts that in most geographic areas of the state, duplication of local loops is extremely unlikely. As such, even facilities-based competitors will be required to purchase their loops from SNET. AT&T states that all of the unbundled network elements are classified as noncompetitive services under PA 94-83, which confirms that they are bottleneck facilities.

imposed by other LECs. AT&T claims SNET's charges create an essentially insurmountable barrier to competitive entry, particularly if there is increasing customer churn. AT&T opines that as a practical matter, CLECs will most likely not be able to ever recover all of these nonrecurring charges. AT&T also claims that SNET purposefully based these charges on an unnecessarily complex provisioning process and included an unreasonably high level of contribution in order to create a barrier to competitor's use of unbundled elements. Regarding SNET's revised nonrecurring loop charge proposal, AT&T contends that the new proposed rates are still inflated and should be further reduced. AT&T states that SNET's proposed service limitations with respect to the simply provisioned loops are unreasonable and a transparent attempt to discriminate against CLECs in violation of the FTA.

Regarding SNET's proposed Complex Circuit Process, AT&T maintains that it is unnecessary for the provisioning of unbundled loops. AT&T states that SNET's requirement for all unbundled loops to have the redundant SARTS/SMAS testing capability effectively imposes a significant barrier to competitive entry using unbundled loops. AT&T opines that SNET has ignored the fact that CLECs have the same Mechanized Loop Testing (MLT) capability and will be able to do the same kind of testing that SNET currently does. AT&T asserts that SNET should not be allowed to avoid the requirement of offering unbundled elements by utilizing an unduly complicated provisioning system for unbundled elements, through imposition of excessive nonrecurring charges that prohibits competitors from the efficient use those elements.

AT&T claims that the costs attributed by SNET for central office cross connection and disconnection for existing and new services are also excessive and inconsistent with the costing of similar elements involved in the provisioning of services to be resold by a CLEC. AT&T states that the simple provisioning process for an unbundled loop requires a cross-connection at SNET's main distribution frame only between the loop termination and the tie pair termination that provides access to the CLEC's collocated equipment and is similar to the connection necessary when SNET provisions any new service. According to AT&T, SNET has calculated the connection cost to support the nonrecurring charge imposed for wholesale provisions of a new service. AT&T contends that SNET's cross connection costs for connections incurred when providing wholesale services is approximately 33% of the total cost attributed to cross connection costs for new unbundled loop service even with the simple circuit provision process. AT&T argues that the difference between these two service offerings results from a significantly smaller assignment of time needed to perform the connection function in the cost study associated with the offering of wholesale services to a CLEC. AT&T argues that there is no explanation for the significant difference in time for a similar function and concludes that the cost of central office cross connections should be reduced to the same amount used in SNET's wholesale new service study.[13]

[13] SNET states that AT&T's analysis comparing the cross-connection costs of unbundled loops to resale fails to recognize that additional functions are performed for cross-connecting unbundled network elements, requiring more time being allotted for network elements than resale. SNET claims that AT&T is also incorrect to compare statewide resale costs with those of unbundled loops provided largely from SNET's major central offices with large main distribution frames which incur a higher costs. Lastly, SNET cites its response to MCI1-021, Attachment B, p.19. SNET Reply Brief, p. 18.

AT&T also believes that SNET's line connection costs are overstated and should be reduced significantly. AT&T states that comparing this cost with the line connection component included in the resale service connection cost study reveals that the cost for this same element in the unbundled loop connection study is more than five times that included in its resale service study. AT&T opines that the primary difference is that the resale service study assumed that a technician would be dispatched and a line connection charge incurred, only a percentage of the time, while the unbundled loop study assumed that a line connection charge would be incurred in a greater number of cases. AT&T asserts that there is no basis for this arbitrary difference and SNET should make the same assumption when calculating the line connection charge for the unbundled loop nonrecurring charge. AT&T also asserts that since SNET's last minute offer of a nonrecurring charged based on a simple circuit process was limited to the DS0 loop, that other loops should also be offered using a simple circuit provisioning process. Salvatore Testimony, pp. 9-15, Triola Testimony, p. 3; AT&T Brief, pp. 26-34; AT&T Reply Brief, 5-7.

AT&T further recommends that a minimal contribution be added to SNET's nonrecurring costs. AT&T states that SNET has not established an adequate factual basis for determining what its forward looking joint and common costs are and it is inappropriate to recover recurring joint and common costs through nonrecurring charges. According to AT&T, the danger of placing a significant mark-up on nonrecurring charges (to recover recurring joint and common costs), is that an over-recovery of contribution would occur due to customer churn. AT&T opines that SNET may experience a windfall recovery if customer churn results especially when different CLECs order the same loop repeatedly over time. AT&T suggests that if the Department is to provide for any contribution for these nonrecurring charges, it should apply a minimal contribution.

Similarly, AT&T opines that nonrecurring charges for loops provisioned using a complex circuit are overstated and should also be reduced (e.g., C.O. cross-connection, line connection and Business Dispatch Administration Center (BDAC) components). Additionally, AT&T recommends that SNET's disconnection charges should be separated from its connection charges. According to AT&T, separating installation charges from disconnection charges achieves procompetitive benefits, because it minimizes the initial barrier to competitive entry, links cost recovery more closely to the way in which the costs are actually incurred, and sends the proper economic signals to the CLECs. AT&T Brief, pp. 35-39.

5. Miscellaneous

AT&T states SNET's proposed limitations on the simply provisioned loop are unreasonable and inconsistent with the FTA. AT&T also states that the minor change involved in provisioning a loop using a simple rather than complex circuit does not justify the types of reductions in service and quality as suggested by SNET. AT&T argues that SNET not be permitted to avoid its obligation to provide nondiscriminatory treatment and service parity and that SNET's inability to do remote testing of the loop

not impact service standards.[14] AT&T contends that while the issue of service standards is currently scheduled for further consideration in a new docket, the Department should inform SNET that it cannot escape its service responsibilities for those more simply provisioned loops.

Additionally, AT&T recommends that SNET also be ordered to make the cutover process as efficient as possible. AT&T maintains that it is unreasonable to deny customers service for any significant period of time because they want to change service providers. AT&T also maintains that SNET should not be permitted to discriminate against CLECs in the cutover process in that the outage time for customers transferring to a CLEC be no longer than for a customer transferring back to SNET service.

Lastly, while noting SNET's suggestion that use of a simple circuit loop provisioning process may interfere with providing Operational Support Systems (OSS) implementation, AT&T recommends against providing SNET with a blanket exemption from the various arbitration provisions concerning OSS implementation, because some changes "may" be necessary to support this process. Modifications of OSS are an expected part of the rapidly changing, multi-provider telecommunications world. AT&T argues that SNET should make the necessary changes, if any, as a routine part of its normal business activities. AT&T Brief, pp. 40 and 41; AT&T Reply Brief, p. 10.

D. CONNECTICUT TELEPHONE (CT-TEL)

CT-Tel hesitantly supports the substance of SNET's proposal, but urges the Department to reach its Decision with the express reservation of reexamining the matter as competitive entry further matures in the local exchange market in the State of Connecticut. CT-Tel states that has it has little confidence that the process has yielded a full and complete understanding of the complexity of SNET's network and its underlying costs. CT-Tel claims that to a very significant degree, the lack of clarity can be attributed to the unfamiliarity that competitive parties naturally have as they embark in unknown waters. CT-Tel Reply Brief, pp. 1 and 2.

CT-Tel recommends that the Department approve SNET's proposal even though its contains flaws. CT-Tel states that SNET has an obligation to provide the most accurate and readily auditable cost study that is feasible; however, CT-Tel is not convinced that SNET's study is fully reliable. CT-Tel suggests that in the absence of actual experience it seems most appropriate to move forward. Acknowledging the parties' criticisms of SNET's cost study, CT-Tel opines that should the Department

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[14] SNET states that this is a clear example of a CLEC requesting more, while seeking to pay less. According to SNET, common sense dictates that if a CLEC wants a loop provisioned via the simple process, which does not include certain capabilities such as remote testing, it cannot expect the same level of service it would receive with a loaded loop. SNET contends that since it will no longer be responsible for service on an end to end basis, it will be dependent on the CLEC providing accurate and timely testing information. SNET also contends that with the advent of competition, more than one CLEC may be involved, and the number of parties upon whom it must depend for testing information will increase, causing a corresponding increase in the potential for error. SNET maintains that a future docket will address performance standards in detail. SNET Reply Brief, pp. 16 and 17.

adopt SNET's cost study in its current version, it must carefully monitor the development of competition in Connecticut.

CT-Tel claims that it is obvious that the Department should carefully examine the potential cross subsidy in respect to SNET's HFC network. CT-Tel maintains that the effect of any cross subsidization would unjustly increase costs. CT-Tel also maintains that the most significant barrier to creating a competitive local exchange market would be a subsidy which shifts costs to those network elements that are least likely to be substituted with alternative facilities. According to CT-Tel, it would be naive to assume anything other than that SNET will seek to allocate as much cost as possible to irreplaceable elements of its network (i.e., in the ground plant). CT-Tel Reply Brief, pp. 2 and 3.

CT-Tel asserts that in determining appropriate rates and prices, the Department must be sensitive to the fact that the provisioning of wholesale local service subject to resale by CLECs and unbundled loops purchased by facilities-based carriers involve virtually identical process. CT-Tel therefore suggests that the Department examine SNET's pricing proposal because as proposed, SNET has, in effect, arbitrarily discriminated between wholesale and unbundled network elements and this should not be allowed by the Department. To be fair and consistent with both the FTA and the Connecticut General Statutes, CT-Tel suggests the Department require the imposition of rates that promote a non-discriminatory, competitive arena in Connecticut, and are accessible to not only large firms, but also smaller CLECs that do not have the capital or resources of a telecommunication giant. CT-Tel Reply Brief, p. 4

E. MCI TELECOMMUNICATIONS CORPORATION (MCI)

MCI recommends that the Department reject SNET's corrected cost studies because they contain numerous problems with the methodology used to conduct the studies. These problems include: 1) SNET's study of recurring loop costs is not a proper TSLRIC study; 2) an excessive amount of cost responsibility for SNET's broadband network is allocated to telephony services; 3) SNET's study lacks documentation and contain errors; 4) the corrected costs for unbundled loops appear to be substantially overstated; 5) SNET's proposal to set prices for unbundled services at markups in excess of 50% over TSLRIC is anticompetitive and unsupported. Ting Testimony, pp. 6-7.

1. Costing Methodologies and Studies

a. SNET Study

MCI states that SNET's cost studies do not calculate total service long run incremental costs and should be reformulated before they are accepted by the Department. MCI also states that although the Department's earlier approval of SNET's cost studies was based on its assurances that SNET's cost methodology determined the cost of providing service using available, least cost technologies, the present cost studies fail in this respect. According to MCI, SNET's studies fail to compare the cost of copper/fiber loops using DLC or HFC technology to the cost of

conventional copper loops, even though all copper technology is lower in cost. MCI claims that SNET analyzed only DLC-based copper/fiber loops and HFC loops even though the conventional copper technology is the narrowband technology of choice. MCI argues that if SNET has determined that it is in its self-interest to install an all-HFC network, those costs, must not be imposed on ratepayers, including new entrants like MCI, who must purchase unbundled elements from SNET. MCI opines that the issue is not what SNET is actually doing with its network; but rather, what is the least-cost, forward looking technology that can be used to provision the element in question. MCI maintains that SNET cannot use its construction plans as the basis for its cost studies, and at the same time expect to shield its construction plans from scrutiny.

MCI asserts that the correct economic result is to base cost studies on the least-cost, forward looking technology available, regardless of what SNET is constructing. MCI contends that copper loops are a mature technology, and not obsolete. MCI also contends that the fact that SNET ignored this technology in its studies represents a fundamental flaw that invalidates SNET's studies from the beginning.

Additionally, MCI argues that SNET's cost studies are not long run. MCI claims that SNET's use of a five-year arbitrary period instead of a long run period results in higher reported TSLRICs for unbundled loops. MCI posits that even if SNET was correct that HFC is the lowest cost technology, its studies should be sufficiently long run so as to assume that the technology would be deployed everywhere. MCI also posits that in the end, SNET's use of an arbitrary five-year period has the effect of including higher cost DLC technology in its studies. According to MCI, SNET's cost studies are long run in name only, and represents an arbitrary mix of costs. MCI states that the arbitrary nature of the studies are highlighted by the fact that they are based on SNET's actual construction plans for its existing, embedded network, which is designed to provide all services, and not only those at issue in this proceeding. MCI recommends that SNET re-run its TSLRIC studies for unbundled loops utilizing 100% HFC.

MCI contends that SNET's recurring loop cost study is flawed and does not produce costs on a TSLRIC basis. MCI claims that the study is inconsistent with economic costing principles prescribed by the Department in the December 20, 1995 Decision in Docket No. 95-06-17. MCI also claims that SNET's cost study overstates its costs during the planning horizon by omitting from the analysis the low-cost conventional copper loop technology which is currently being used by SNET. MCI asserts that by assuming the loop will be provisioned with either DLC or HFC, SNET is overstating its loop costs. MCI also asserts that in a proper TSLRIC study SNET should have compiled a three-way technology comparison for all model areas, which would have resulted in a lower-cost composite of loop costs. MCI states that it has determined that a proper TSLRIC study which considered all three technology options could have resulted in average costs per loop as much as 10% lower than those shown in SNET's cost study.

MCI also states that SNET is still employing aspects of an embedded cost methodology even though SNET contends that the corrected cost study is on a TSLRIC basis. MCI argues that SNET includes ancient as well as forward-looking investment decisions in reporting the mix of loop technologies it uses as the basis for establishing a TSLRIC for unbundled loops. MCI argues that SNET's TSLRIC costs are substantially

higher than their true TSLRIC costs since SNET has made no determination of what the least-cost technology is, and therefore, is not likely employing the least-cost technology.

MCI opines that the Department rejected SNET's method of allocating HFC joint costs in Docket No. 95-06-17, but that SNET ignored this and resubmitted the same methodology allocating the majority of these costs to telephony. In addition, MCI claims that SNET's costs for service connection and disconnection of loops and ports are more excessive than they were in previously submitted cost studies. Finally, MCI contends that the markups above TSLRIC suggested by SNET are unreasonable. MCI claims that SNET uses two methods to establish a level of markups over TSLRIC, both of which do not comply with the objectives of the FTA and the FCC's First Report and Order, since they use revenue requirements to determine joint and common costs. According to MCI, these markups are anticompetitive because they are based on studies of embedded costs, not long-run incremental costs.

MCI maintains that in setting prices for unbundled network elements, it is critical that prices be set so as to avoid cross-subsidization. MCI contends that SNET cost studies' assumption of universal HFC technology is designed to have MCI and other telephony customers underwrite SNET's expansion into broadband services such as video and high speed data. Specifically, MCI considers SNET's allocation factor to be arbitrarily chosen. MCI argues that SNET's competitors should not be forced to pay 50% of the joint costs when the allocation is unfounded and unauditable, with the correct identification of the relevant costs of each unbundled element critical to the success of competition. MCI asserts that if SNET made its decision to install HFC in order to provide a super premium level of service, MCI and telephony customers should not have to pay the price for a level of quality that they neither want or need. In the opinion of MCI, the risk of expanding into such markets should be borne by SNET's shareholders and not its competitors. MCI argues that in this proceeding MCI and the other CLECs are not seeking to obtain broadband loops from SNET and determining the costs of such a network is an irrelevant exercise. Rather, the purpose of this proceeding is to establish efficient costs for a narrowband network, because efficient costs ensure that cross-subsidization will not occur.

MCI contends that SNET's cost studies are also plagued with inadequacies in documentation and errors. MCI cites as an example, SNET's access line forecast that indicates the rural deployment of HFC within the study period, even though no rural HFC deployment will occur in the next five years. According to MCI, the CLECs are being asked to pay for costly but nonexistent and unplanned technology. MCI also notes that the volume forecast utilized for SNET's studies show no growth in the number of access lines for the period 1996 through 2009, which according to MCI, is an assumption that appears implausible on its face. MCI claims that given the economies of scale that characterize the telecommunications industry, an underforecast of this type would result in an increase in unit costs. MCI asserts that SNET's cost study omissions and errors are troubling in light of SNET's general failure to document its studies. Specifically, SNET's studies fail to provide the proper level of detail so that every step of its analysis can be replicated nor does the study provide all source data so that it may be audited. MCI opines that SNET's cost studies are based on assumptions, guesses and arbitrary judgments by SNET personnel, and are not based on creditable data. It is for this reason, that MCI recommends that the studies be

rejected and that SNET be directed to perform a new study based on a model employing the lowest-cost mix of technologies. Ting Testimony, pp. 12-30; MCI Brief, pp. 8-21; MCI Reply Brief, pp. 2-13.

b. Hatfield Model

MCI states that the Hatfield Model can be used to establish conservatively high estimates of TELRIC for unbundled elements. MCI also states that the Hatfield Model meets the FTA's requirements for pricing network elements and interconnection at just and reasonable, nondiscriminatory and cost based rates. MCI maintains that only this model produces costs for unbundled network elements that are consistent with the Federal Telcom Act. MCI also maintains that in contrast to SNET's TSLRIC cost study, the Hatfield Model provides a reasonable estimate of the costs that would be incurred by an efficient firm to provide the unbundled network functions and basic exchange service. In particular, the Hatfield Model estimates those costs that would be incurred by an efficient local exchange provider to offer unbundled network elements and services, using a network designed to provide narrowband, voice-grade telephone services.

Additionally, MCI claims that the Hatfield Model is an open, public and verifiable method of determining rates for unbundled network elements that are consistent with the 1996 Federal Act. MCI contends that the complete and detailed documentation of the model has been provided including descriptions of algorithms and of the model's inputs and assumptions. MCI also claims that in contrast to the SNET TSLRIC study, the Hatfield Model is publicly available, with all inputs available and documented.

Further, MCI asserts that the Hatfield Model uses a forward looking methodology that incorporates SNET's existing wire center locations and the use of the same technologies used by SNET in its network. MCI maintains that the Hatfield Model is designed to meet the FTA's standard of producing rates that cover the long run incremental costs of unbundled network elements, plus a reasonable share of common costs. MCI notes that the Hatfield Model does not include historical costs, retail costs, opportunity costs, or revenues historically used to subsidize services other than the one whose elements are being costed and priced. MCI states that the model, therefore, does not accept the embedded technology and design decisions made by SNET. MCI contends that to comply with the 1996 Federal Act, a forward-looking model cannot simply mirror a carrier's (or in this case SNET's) existing embedded network nor should it reflect a network specifically designed to accommodate broadband and other nonbasic services. Rather, the model should estimate the forward looking economic costs for a local exchange network to provide basic narrowband local telephone service based on least-cost technology. According to MCI, the Hatfield Model complies with this directive, while SNET's TSLRIC study does not.

In support of the Hatfield Model, MCI contends that the model produces forward looking costs that include a reasonable profit as required by the 1996 Federal Act. MCI argues that the Hatfield Model SNET results assumes a 10.01% overall cost of capital, which is consistent with the cost of capital for all Regional Bell Operating Companies (RBOCs). MCI also argues that the Hatfield Model produces costs that include a reasonable share of joint and common costs and overhead costs. Additionally, the

model includes all investment costs and expenses used to provide the element in question and attributes the incremental costs to the specific elements. Moreover, for both dedicated and shared investments, the Hatfield Model includes the forward looking costs of capital needed to support investments required to produce a given element. Lastly, MCI claims to comply with the FCC's requirement that overhead costs be included to the extent that they vary with the output of particular network elements, and to the extent that there are any such overhead costs that are common to several wholesale elements, the Hatfield Model adds a 10% mark-up to costs. Therefore, in the event that the Department does not decide to order SNET to perform a new TSLRIC, MCI recommends that the Department use the Hatfield Model to set permanent rates for the network elements under study. MCI Brief pp. 25-35; MCI Reply Brief, pp. 19-24.

2. Contribution to Common Costs

Similar to the other parties in this proceeding, MCI contends that SNET's mark-ups on joint and common costs cannot be justified and should be reduced. MCI maintains that SNET's proposed mark-ups are flawed in concept, without any basis in evidence, and have the effect of significantly and inappropriately increasing the costs of unbundled elements. MCI states that use of a purported revenue requirement in any manner to justify mark-ups is contrary to sound economic principles and policy, and contrary to the FTA itself. MCI also states that mark-ups based on, or derived from, an analysis of a revenue requirement may also run afoul with the 1996 Federal Act's mandate that rates for unbundled elements be set without regard to rate-of-return or other rate-based regulation. Additionally, MCI asserts that the use of any so-called revenue requirement serves only to reflect SNET's embedded inefficiencies rather than true forward looking joint and common costs. MCI argues that basing any cost analysis on such an inefficient carrier would only serve to impose its inefficiencies on its competitors.

MCI is not persuaded by SNET's argument that loops are not essential and that it should be permitted to impose higher mark-ups for these services. MCI contends that unbundled voice grade analog loops are critical to new entrants' efforts to reach a broad array of customers and the widespread development of facilities-based competition. MCI states that allowing SNET to impose a significant "tax" on these elements would be contrary to the Department's prior orders that envision the widespread development of competition rather than creamskimming and redlining.

MCI claims that the correct approach in calculating markups is to study an efficient firm operating in a competitive environment as a benchmark in determining costs. MCI supports the use of the Hatfield Model to conduct such an analysis. MCI opines that the Hatfield Model has determined a mark-up of 10% to be appropriate, and should the Department not adopt the model in its entirety, the 10% mark-up is the only mark-up justified by the evidence in these proceedings. In the event the Department rejects the 10% mark-up, MCI recommends that the Department cap any mark-up on unbundled elements at 15%. MCI asserts that given the critical nature of unbundled elements to the development of competition in Connecticut, any mark-up for joint and common costs should not exceed 15%. MCI Brief, pp. 21-25; MCI Reply Brief, pp. 13-18.

3. Nonrecurring Charges and Recurring Rates

Relative to SNET's proposed nonrecurring charges, MCI argues that they are unjustifiably high and will be a barrier to effective competition. Noting that SNET currently imposes a $45 and $65 nonrecurring charge for existing DS0 loops for residential and business customers respectively, MCI takes issue with SNET's proposal to charge $238.46 in nonrecurring charges to competitors for existing service on DS0 loops and $324.09 when a loop needs to be installed for a new service. MCI argues that high nonrecurring charges will block the development of local competition just as effectively as high recurring rates. MCI also argues that the proposed nonrecurring charges will serve only to deter entry by competitors and to perpetuate SNET's monopoly, even under a nominally competitive system.

MCI also contends that SNET's proposed nonrecurring charges are unjustified by any meaningful data or study. For example, MCI opines that SNET's proposed nonrecurring charges are inflated because they improperly treat unbundled loops and ports as "complex" or "special service" circuits requiring complex design, maintenance and testing, even though SNET will have no end-to-end responsibility for service provided to competitive carriers. MCI posits that by designating the unbundled loops as complex, SNET has inappropriately examined the cost of processes that are inapplicable to the connection and disconnection of unbundled loops. MCI asserts that as a result of using the complex service order process, costs are further increased because a work order record detail document which assigns the necessary circuit design characteristics, must be completed. MCI claims that the costs associated with this process are a significant percentage of SNET's proposed cost for the connection of a DS0 loop.

Additionally, MCI argues that an unbundled loop does not require special maintenance and testing as claimed by SNET. MCI states that once an unbundled loop is connected to a CLEC's switch and is in service, the CLEC would have the responsibility to ensure that its loop functions properly. MCI also states that SNET's proposal to assign SMAS cross-points is an unnecessary technical solution that would utilize equipment designed specifically for the maintenance and testing of true special circuits, not unbundled loops. According to MCI, SMAS is neither the most appropriate nor the most economically efficient means of accessing the loop.

Furthermore, MCI argues that SNET's studies inflate its nonrecurring costs by making assumptions about the manner the CLECs would usually interact with SNET. MCI cites as an example, service ordering wherein SNET assumed it would continue to pay for manual service to handle the CLECs' ordering of unbundled loops, a process that will soon be fully automated. MCI takes issue with the SNET study because it treats orders made by CLECs as if they were made by consumer end-users, who have little familiarity with the options and services available. MCI contends that such a labor-intensive service is inefficient and simply unnecessary for CLECs who will know precisely the type of services needed and will make their orders of basic unbundled loops in bulk.

MCI cites as another example SNET's treatment of line connections within its study. In particular, SNET assumes that its central office technicians, when connecting

an unbundled loop to a new entrant's network, will spend 42 minutes at the main distribution frame (MDF) installing jumper wires. MCI states that it is doubtful that even in extremely large MDFs, this length of time is necessary. According to MCI, time estimates like these that are not based on any real time and motion studies and greatly inflate the reported costs relating to these nonrecurring functions. MCI Brief, pp. 35-41; MCI Reply Brief, pp. 24-27.

Lastly, MCI notes that SNET's Unbundled Local Switching Tariff does not comply with the FCC's First Report and Order. MCI recommends that the Department direct SNET to refile its unbundled local switching tariff within 30 days. MCI Brief, p. 41.

F. MFS INTELENET OF CONNECTICUT, INC. (MFS)

1. Nonrecurring Charges and Recurring Rates

MFS states that the Department should reject SNET's proposed nonrecurring charges for loops because they violate §252(d)(1) of the 1996 Federal Act and they are discriminatory. MFS also states that SNET's proposed nonrecurring charges for provisioning loops are discriminatory on their face if they exceed the service initiation charges that SNET imposes on its retail customers. MFS argues that SNET's proposed nonrecurring charges will act as a barrier to entry into Connecticut's local exchange markets and for CLECs, who will attract few, if any customers, willing to pay substantially more to initiate service with an alternative carrier than they would pay SNET to initiate the same service. MFS also opposes nonrecurring charges for provisioning loops that exceed SNET's retail service initiation fees on the grounds that they are discriminatory and would impose a price squeeze on CLECs. MFS also argues that SNET's proposed nonrecurring charges discriminate against purchasers of unbundled loops vis-à-vis purchasers of wholesale local service. MFS claims that SNET's proposed unbundled loop nonrecurring charges assessed to purchasers of unbundled loops are greater than those charges imposed to initiate wholesale local service, in some cases, by a factor of ten. MFS Brief, pp. 3-5.

Additionally, MFS argues that SNET developed its proposed nonrecurring charges for analog loops in a discriminatory manner. According to MFS, SNET went to extraordinary lengths either to inflate the cost of nonrecurring charges or to degrade the service interval for its competitors. MFS claims that SNET planned to apply its self-described "complex order" process to all unbundled loop orders, resulting in more elaborate and more expensive provisioning processes for its competitors. MFS cites as an example, SNET's planned use of WORD and SMAS testing of every loop, even though POTS lines serving SNET's retail customers are not subject to either of these items. MFS also cites SNET's assumption that a technician would need to be dispatched to the customer's premises for 100% of new loop installations event though its current rate of dispatch for noncomplex installations would have been 17%. MFS claims that SNET essentially intended to treat every loop order as an order for a private line, despite the fact that the vast majority of unbundled loops would be no different than those used for POTS lines. MFS opines that SNET wanted to saddle the retail customers of unbundled loop purchasers with expensive and inferior service, while its own customers and those customers of resellers would enjoy low-cost, prompt service

installation. MFS asserts that through its proposal, SNET would breach its duty to provide interconnection that is at least equal in quality to that provided to itself or any other party which SNET provides interconnection such as local resellers.

MFS also takes exception to SNET's proposal to include an additional rate element for the provisioning of non-complex loops in its nonrecurring charge because certain subscribers would receive a diminished commitment to service quality. According to MFS, the non-complex loop charge continues to include the cost of dispatching a technician for every loop. MFS maintains that there is no justification for the CO Cross Connect charge to be higher than the equivalent charge for new loops.

Additionally, MFS states that the non-complex provisioning charges remain substantially greater than SNET's retail service initiation fees as well as SNET's proposed nonrecurring charges for its wholesale service. MFS notes that in the one case where the non-complex charge for provisioning existing loops is equal to the retail provisioning charge for business lines, it is clear that the business line customers will receive much more reliable service guarantees. MFS argues that the non-complex provisioning charges are either discriminatory on their face because of their relationship with SNET's retail and wholesale offering or as applied due to SNET's unwillingness to guarantee equal service intervals. MFS also argues that the non-complex provisioning charges constitute separate violations of SNET's requirement to ensure nondiscriminatory rates, terms and conditions for unbundled loops and to provide interconnection of equal quality to that provided to itself or any other party as pursuant to the FTA. MFS Brief, pp. 5-9; MFS Reply Brief, pp. 1-3.

Further, MFS claims that SNET's proposed ISDN loop nonrecurring charge is not based on an accurate representation of the cost of digital conditioning. MFS maintains that conditioning involves removing any load coils present in the loop and trimming excessive bridge taps. However, loops in the networks proposed by SNET's cost studies do not contain load coils and bridge taps, and there is no need for digital conditioning. MFS asserts that under this construct, the nonrecurring charges for ISDN and analog loops should not vary from one another.

MFS opines that SNET appears to have included a certain amount of conditioning costs in every ISDN nonrecurring charge based on the percentage of loops in SNET's network that generally require conditioning. MFS also opines that contrary to SNET's intimations, the loops requiring digital conditioning are not equally dispersed in SNET's network. MFS states that generally, loops shorter than 12,000 feet do not normally have load coils and may not contain bridge taps. MFS claims that these are the loops that it intends to purchase; and therefore, objects to being subjected to a potentially disproportionate charge for digital conditioning. MFS contends that SNET's assumption that loops will be conditioned equally inflates the non-recurring charges for ISDN loops without an adequate cost basis in violation of §251(d)(1) of the FTA. Accordingly, MFS supports the development of a flat charge for digital conditioning to be applied to any loop that actually requires conditioning. MFS Brief, pp. 9 and 10.

MFS further argues that SNET's proposed contribution levels lack an adequate cost basis. MFS claims that the contribution levels are supposed to fund SNET's joint and common costs of provisioning. MFS objects because provisioning costs are mostly

attributable to the labor costs associated with installing cross-connections, replacing line cards, etc. MFS claims that the labor costs in SNET's study are fully loaded and SNET has not established a basis for further contribution above and beyond the loaded labor rates. MFS also objects because SNET has not introduced any support for its proposed contribution levels. Specifically, SNET's study does not describe what functions are being funded with this contribution. MFS states that it believes these contribution levels are arbitrary and urges the Department to reject them. MFS contends that nonrecurring charges for loops should only reflect the direct costs that SNET has established in this proceeding. MFS Brief, pp. 10-12.

MFS also contends that SNET's proposed nonrecurring charges are exaggerated in comparison with those of incumbent LECs in other states. MFS claims that SNET advocates pricing loop provisioning at several times the largest total nonrecurring and service order charges of NYNEX, Ameritech and Bell Atlantic in other states. MFS states that the Department should question SNET's cost basis for doing so, given these companies' provisioning rates and charges in other jurisdictions. MFS Brief, p. 12.

MFS also recommends that the Department limit SNET's recurring loop rates to the direct costs of copper/fiber loops and reasonable joint and common costs. MFS claims that SNET's proposed HFC network is less efficient than the copper/fiber network configuration and SNET cannot be permitted to saddle competitors purchasing access to bottleneck facilities with its inefficiencies. MFS states that SNET's proposed copper/fiber network configuration is reasonable and supports pricing elements throughout SNET's entire network on that basis. MFS also states that it cannot support the HFC network, because, on its face, it fails efficiency principles. According to MFS, HFC technology results in more costly network elements that perform no better than those of the copper/fiber network configuration. Therefore, MFS proposes basing SNET's recurring loop rates on direct costs that do not reflect HFC investment, but only those costs associated with the copper/fiber configuration that SNET supports. MFS Brief, pp. 13-15.

Additionally, MFS argues that SNET has not offered any cost support for the contribution to its proposed recurring loop rates. MFS asserts that SNET's proposed contribution levels are excessive by most standards and nowhere in SNET's cost study does support for its proposed contribution exist. MFS urges the Department to reject SNET's contribution levels and adopt a more reasonable 5% factor for joint and common costs. MFS claims that this 5% factor embodies the FCC's belief that bottleneck facilities should bear a minimum level of contribution. MFS Brief, pp. 16 and 17; MFS Reply Brief, pp. 5 and 6.

Further, MFS recommends that the Department deny SNET's request for upward pricing flexibility for its unbundled loops. MFS contends that upward pricing flexibility should be limited to competitive services and not bottleneck facilities such as unbundled loops. Additionally, MFS claims that nothing in the 1996 Federal Act can be interpreted to permit the pricing flexibility that SNET is requesting. Rather, the FTA requires only that prices for network elements be based on cost and include a reasonable profit. FTA, §252(d)(1). MFS notes that SNET's proposed initial recurring loop rates are supposedly based on direct cost and common costs and include profit

through a return on invested capital. According to MFS, pursuant to the 1996 Federal Act, the Department cannot allow SNET to exceed these prices for recurring loop rates and that the only pricing flexibility available to SNET would involve lowering loop prices further. MFS therefore recommends that the Department reject SNET's proposed pricing flexibility for recurring loop rates. MFS Brief, pp. 17 and 18.

Finally, MFS suggests that SNET be directed to provide cross connect cables that are free of SMAS testing equipment and complementary to CLECs' collocated equipment. MFS states that it objects to the inclusion of SMAS testing equipment costs in the cross connect rate for the same reasons that it opposes inclusion of these costs in SNET's proposed non-recurring charges for provisioning loops. Therefore, MFS recommends the Department set cross connection rates absent SMAS costs. Additionally, MFS disagrees with SNET's decision to only offer 250-pair cables. MFS claims that there are modular cable sizes available in the industry that would appropriately match the port configurations of MFS' different sets of collocated equipment. MFS objects because 250-pair cable matches none of its existing port configurations. MFS asserts that SNET has not advanced any rationale for restricting cross connection to 250-pair cables; and accordingly, recommends that the Department order SNET to expand the number of cable sizes available to CLECs purchasing cross connection. MFS Brief, pp. 18 and 19.

2. Additional Loop Provisions

MFS requests the Department require SNET to condition its copper loops for ADSL and HDSL services when presented with a request from a new entrant. MFS claims that these technologies allow carriers to utilize existing copper loops to provide services at speeds much higher than can be provided by basic ISDN.

MFS contends that SNET's current service standards with respect to installation and maintenance of unbundled loops are inadequate. MFS argues that SNET has an incentive to provide inadequate service to its competitors, and must be prevented from doing so. MFS recommends that the Department specify damages amounts to be paid to new entrants for an incumbent LEC's failure to meet minimum standards. MFS also proposes that SNET be directed to provide service intervals for installation and maintenance of unbundled loops at intervals equal to those received by SNET's retail customers. Additionally, MFS suggests that failure of SNET to meet a given interval for three or more consecutive months should result in a liquidated damages payment of $75,000 per month. Ball Testimony, pp. 1-21.

G. The New England Cable Television Association, Inc. (NECTA)

NECTA's primary concern is cost assignment and allocation matters resulting from SNET's decision to invest in the HFC network for the purpose of offering both telephone services and broadband services. NECTA is concerned that basic telephone service subscribers would unfairly bear most of the costs associated with HFC because joint and common costs may not be properly allocated in SNET's cost of service studies.